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FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER BELIVEAU, SCOTT E	
			ART UNIT 2614	PAPER NUMBER 7
DATE MAILED: 10/29/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/668,465

**Applicant(s)**

PROKOPENKO ET AL.

**Examiner**

Scott Beliveau

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) 25-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-15 and 17-23 is/are rejected.
- 7) ☒ Claim(s) 8,16 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-24, drawn to a method of enabling selection of a program for viewing, classified in class 725, subclass 46.
  - II. Claims 25-69, drawn to a method for making recommendations to a user of programs, classified in class 725, subclass 93.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require the claimed particular methods related to the selecting, ordering, and filtering of relationships in order to provide user program recommendations. The subcombination has separate utility in so far as it provides the ability to utilize a number of filters and selectable relations in conjunction with the delivery of program recommendations.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Dave Jordan on 8 October 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 25-69 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Priority***

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

6. The USPTO is participating in a search exchange pilot program with the IP Australia patent office. As part of the pilot program, the USPTO has received a copy of the Office action, ISR and/or IPER prepared by the IP AU. These references cited in the IP AU were

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also cited in the information disclosure statement, Paper No. 6 supplied by the application and have been subsequently considered by the examiner.

### ***Drawings***

7. The drawings are objected to because:

- Figures 1A-B contain no labels which renders it difficult for one to quickly ascertain the referenced elements without referencing the specification;
- Figures 1A, and 3-5 are objected to because the drawings provided to the examiner appear to be photocopies in which the contrast was too high when copied. Subsequently, the referenced drawings comprise blackened sections in which the examiner is unclear as to what elements are being referenced by the element numbers.
- Figures 7A, 7C-E, and 8 are objected to because the labels do not conform to US spelling practices.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 218 (Figure 7B), 272 (Figure 7E), 341 (Figure 7I), 377 (Figure 7K). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description,

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are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

9. Claims 5, 7, 13, 15, 21, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the examiner is unclear as to where support is found within the specification for the particular limitation wherein selections are based on the “lowest value as the ordered value”. The examiner’s understanding is that the “ordered value” refers to the occurrence values for a given set of characteristics as illustrated in Figure 6. The specification further discloses a number of ordering arrangements (Page 24, Line 14 – Page 25, Line 20). However, presuming that the examiner is referencing the appropriate section, it is unclear as to how the limitation claims are being supported in light of the specification.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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11. Claims 1, 4, 6, 8-9, 12, 14, 17, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lawler et al. (US Pat No. 5,758,259).

In consideration of claim 1, Figure 1 of the Lawler reference discloses a method for “enabling the selection of a program for viewing in a television system” [10] using “title information and characteristics of programs” made available as “EPG data” (Col 6, Lines 11-21). The method involves the “recording a plurality of characteristics” that are “associated with each program viewed by the said user” (Tables 1A-D; Col 7, Lines 36-60). “Upon entry of a user request for a program recommendation” (Col 4, Lines 43-49), the embodiment “performs a search of the EPG data for programs” and based on “characteristics” of the available programs “forms sets of said characteristics . . . comprising at least two of said characteristics”, “associates at least each set with an ordered value representative of a user’s desire to view a particular program”, and “notifies said user of an availability of programs that best match said sets as program recommendations” (Figure 3B; Col 8, Line 45 – Col 9, Line 19).

Claim 9 is rejected wherein the embodiment comprises “memory means”, “processing means”, and “searching means” as provided by the central control node [12] and “on-screen display means” [18] at the user terminal.

Claim 17 is rejected wherein the method of claim 1 may be implemented as a “computer program product” comprising “computer program code” (Col 12, Lines 6-8).

Claims 4, 12, and 20 are rejected wherein the “program recommendations” may be based on programs that match said sets comprising a “greatest number of said characteristics”. For example, per the algorithm set forth in the reference the baseball game between the Boston

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Red Sox and the Toronto Blue Jays (Table 1B) comprises 4 characteristics that based on Table 2 would result in a sum of count of 56 while the David Letterman program comprises 5 characteristics for a sum of counts of 185 (Col 8, Line 64 – Col 9, Line 6).

Claims 6, 14, and 22 are rejected wherein the “program recommendations” may be based on the “sets associated with the highest value as the ordered value and comprising the greatest number of said characteristics”. For example, this limitation may be met wherein the aforementioned David Letterman show was selected as the preferred program is associated with the both the “highest value as the ordered value” and “comprises the greatest number of said characteristics” in relationship the to the baseball game example.

12. Claims 1-2, 4, 9-10, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al. (EP 774 866 A2).

In consideration of claim 1, the Reynolds et al. reference discloses a method for enabling the selection of a program for viewing in a television system (Figure 4) in which title information and characteristics of programs are made available EPG data (Figure 1). The method may be implemented such that the embodiments “records a plurality of characteristics associated with each program viewed” (Figure 2). These “characteristics” may be “formed” into “sets comprising at least two of said characteristics” (Figure 6c) and “associated . . . with an ordered value representative of user’s desire to view a particular program”. For example, a “set” may be comprised of the combination of “movie/comedy” and is represented by an ordered value in the form of a “count”. Subsequently, “upon entry of a user request for a program recommendation” (Figure 6a), the embodiment is operable to



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“perform a search of the EPG data for programs with characteristics that best match said sets” and to subsequently “notify said user” as to their availability (Figure 6B; Figure 5).

Claim 9 is rejected wherein the embodiment comprises “memory means”, “processing means” [415R], “searching means”, and an “on-screen display means” [403].

Claim 17 is rejected in view of claim 1 wherein the aforementioned method may be implemented via a “computer program product” that is executed via the aforementioned processor means [415R].

Claims 2, 10, and 18 are rejected wherein the aforementioned “search” may further utilize “the user’s information determined in accordance with user’s manual operations” such that the user may manually remove recorded characteristics and/or sets (Figure 6C).

Claims 4, 12, and 20 are rejected wherein the aforementioned “best match” may be based on “said sets comprising a greatest number of said characteristics” (Col. 3, Lines 24-33).

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to

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point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 2-3, 10-11, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al. (US Pat No. 5,758,259), in view of Hendricks et al. (US Pat No. 5,798,785).

In consideration of claim 2-3, 10-11, and 18-19, the Lawler et al. reference suggests that the “best match” is formulated based on a user’s viewing history. Accordingly, it is unclear from the reference if the best match may be further “determined in accordance with user’s manual operations”. The Hendricks et al. reference suggests that program suggestions algorithms may utilize intelligent profile generation methods based on viewing history (Col 35, Lines 9-18) such as those described in Lawler et al. in conjunction with “user’s manual operations” (Figures 12C-E) that indicate a “mood, being experienced by said user” (Col 2, Line 62 – Col 3, Line 27; Figure 13B; Col 37, Lines 14-64). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the Lawler et al. reference to further utilize “information determined in accordance with user’s manual operations” to indicate a “mood being experienced by said user” as taught by Hendricks et al. for the purpose of advantageously providing further assistance to indecisive or lazy viewers (Hendricks et al.: Col 33, Lines 50-57) and to further provide a means to provide more meaningful recommendations that take into account a user’s current mood in conjunction with viewing history.

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16. Claims 4-7, 12-15, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (EP 774 866 A2), in view of Killian et al. (EP 854 645 A2).

In consideration of claims 4-7, 12-15, and 20-23, the Reynolds et al. reference discloses the use of a "weighted algorithm" in conjunction with the determination for the presentation of recommended programs and further suggests the use of rudimentary viewer inputs to influence profile. The Killian reference discloses a method for suggesting/recommending programs based on a user profile developed through user inputs that utilizes rankings of "sets of characteristics" from the profile in comparison with the user preferences. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to enhance the Reynolds et al. embodiment to further incorporate the user developed based profile for the purpose of providing an enhanced means by which suggestions may be derived based on information other than viewing history and to further record televised programming without relying upon on broadcast information (Killian: Col 3, Lines 1-4).

With respect to the specific algorithms utilized in conjunction with making program recommendations as claimed, the Killian reference explicitly discloses that the present invention contemplates any evaluation or weighting technique suitable to allow viewers to provide rankings (Col 12, Lines 40-43). Furthermore, the reference suggests that the particular algorithm may add, average, or otherwise manipulate rankings to determine desirability of the particular program based on viewer preferences and program characteristics. However, the reference does not explicitly disclose nor preclude the particularly claimed method for determining recommendations based on the "greatest number or said characteristics" (claims 4, 12, and 20), based on "said sets associated with a lowest

value as the ordered value” (claims 5, 13, and 21), based on “sets associated with a highest value as the ordered value and comprising the greatest number of said characteristics” (claims 6, 14, and 22), or based on “sets associated with a lowest value as the ordered value and comprising the greatest number of said characteristics” (claims 7, 15, and 22). Such techniques, however, are commonly associated with the data analysis techniques referred to as cluster analysis. Accordingly, it would have been an obvious matter of design choice to utilize any of the aforementioned cluster analysis algorithms in conjunction with the Killian embodiment, since applicant has not disclosed that the aforementioned methods solves any stated problem or is for any particular purpose and it would appear that either the invention or the Killian embodiment would perform equally well using any or all of the aforementioned methods of data manipulations techniques.

***Allowable Subject Matter***

17. Claims 8, 16, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With respect to the art of record, the interpretation based on the creation of sets of characteristics with either the Lawler et al. or Reynolds et al. references would presumably be “formed in response to that at least one of the programs viewed by said user have the same characteristics” as opposed to claimed limitation such that the set is “formed in response to that at least two of the programs viewed by said user have the same characteristics”.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Barrett et al. (US Pat No. 6,005,597) reference discloses a method and apparatus for television program selection that monitors the viewing preferences of a viewer to create a dynamic viewer profile that is used to rate available programs.
- The Graves et al. (US Pat No. 5,410,344) reference discloses a method and apparatus for selecting audiovisual programs for presentation to a viewer.
- The Williams et al. (US Pat No. 5,977,964) reference discloses a method and apparatus for suggesting programming selections in conjunction with automatically configuring a system based on a user's monitored system interaction and user profile.
- The Shah-Nazarof et al. (US Pat No. 6,317,881) reference discloses an improved method and apparatus to collect and provide viewer feedback to broadcasts that may be utilized to provide programming suggestions to subsequent viewers.
- The McClard (US Pat No. 6,438,752) reference discloses a system and method for selecting programs based on the past selection history of an identified user.
- The Amano et al. (US Pat No. 5,585,865) reference discloses a television receiver that selects programs by genre and past viewing habits.

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- The Wehmeyer et al. (US Pat No. 5,867,226) reference discloses a television system that stores information about the particular shows the user watches as search criteria for suggesting/recommending additional programming.
- The Sheppard (US Pat No. 6,026,397) reference discloses a system for analyzing data files containing a plurality of data records using clustering techniques.
- The Herz et al. (US Pat No. 5,754,939) reference discloses a method for the customized electronic identification of desirable objects based on the use of clustered profiles.
- The Herz et al. (US Pat No. 5,758,257) reference discloses a method for providing programming recommendations based on a clustered analysis of characteristics.
- The Robinson (US Pat No. 5,884,282) reference discloses an automated collaborative filtering system for recommending at least one item to a first user based on similarity in preference of the user as compared with other users.
- The "Cluster Analysis" article provides an overview of various applications and algorithms used in conjunction with clustering analysis.
- The "Multivariate Statistics: Concepts, Models, and Applications – Cluster Analysis" reference provides an illustrative example on the use of clustering analysis techniques.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.

The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

SEB

October 11, 2003

  
JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600